

AMENDMENTS TO THE CLAIMS:

Complete Listing of Claims

Claims 1-15 (cancelled)

Claim 16 (previously presented) A reel to reel method for assembling a plurality of flip chip semiconductor devices including the following steps:

feeding flexible tape, having a sequence of substrates disposed thereon, each such substrate having arranged on a contact surface thereof a pattern of conductor traces terminating in contact pads, stepwise from a reel onto a work station; depositing a rapidly curing thermosetting adhesive on an unpatterned area of one of said substrates,

feeding the tape to move the one of said substrates to a next work station; aligning a semiconductor chip having a back surface and having contact terminals protruding from a front surface thereof, such that the contact terminals align with mating contact pads on said substrate; and bonding the contact terminals with the contact pads by thermal compression bonding;

feeding the tape to move the one of said substrates to a further work station having an infrared radiation source; exposing the back surface of said chip to said infrared radiation for a duration whereby the infrared radiation is conducted as heat to said adhesive and causes said adhesive to flow between the contact surface of the substrate and the front surface of the chip, surrounding the contact terminals, and subsequently solidify to adhere the chip to the substrate to form the assembled device; and

winding the tape with the assembled device onto a take up reel.

Claim 17 (previously presented) A method as in claim 16 wherein the duration of infrared exposure is less than a time for alignment and bonding of the chip and the substrate.

Claim 18 (original) A method as in claim 16 wherein the terminals are bonded by thermo-sonic bonding.

Claim 19 (cancelled)